## F I G. 1

$$0 = C \longrightarrow 0 \longrightarrow (I)$$

$$0 = C \longrightarrow 0 \longrightarrow X$$

$$0 = C \longrightarrow 0 \longrightarrow X$$

$$0 = C \longrightarrow 0 \longrightarrow X$$

$$0 = C \longrightarrow 0 \longrightarrow P \text{ (II)}$$

$$0 = C \longrightarrow 0 \longrightarrow P \text{ (OR)}_2$$

$$0 = C \longrightarrow 0 \longrightarrow P \text{ (OH)}_2$$

$$0 = C \longrightarrow 0 \longrightarrow P \text{ (OH)}_2$$

$$0 = C \longrightarrow 0 \longrightarrow P \text{ (IV)}$$

## F I G. 2

$$0 = C \longrightarrow 0 \longrightarrow 0$$
NBS, AIBN/DMF  $\int 70^{\circ}C$ , 6h

PPBP

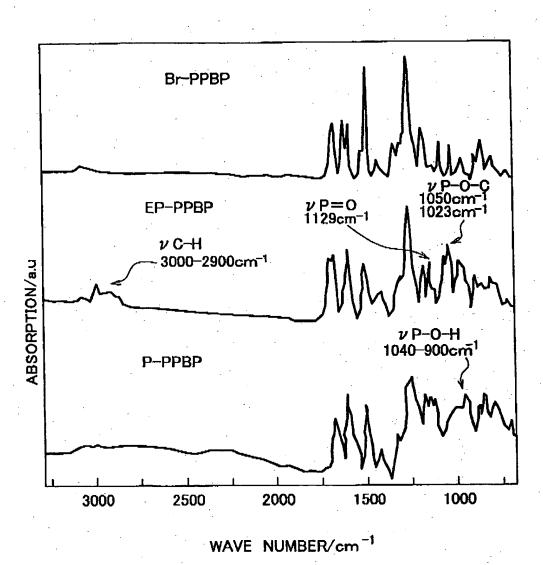
Br-PPBP

$$0 = C \longrightarrow 0 \longrightarrow P (OEt)_2 EP-PPBP$$

$$(CH_3)_2S/CH_3SO_3H ROOM TEMPERATURE, 50h$$

$$0 = C - O - O - P (OH)_2 P-PPBP$$

F I G. 3



F I G. 4

